## WHAT IS CLAIMED IS:

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- 1. An apparatus for measuring the volume of individual particles in a liquid, the apparatus comprising:
  - (a) a container for suspending particles in a liquid, said container being suitable to perform transmission measurements;
  - (b) a means for illuminating the suspension with a wavelength of light;
  - (c) a means for measuring the intensity of transmitted light that reemerges from said suspension; and
  - (d) a means for changing the thickness of said container by a known amount.
  - 2. The apparatus of claim 1 further comprising a microscope.
  - 3. The apparatus of claim 1 wherein the container is an optical cuvette.
- 4. The apparatus of claim 3 wherein the optical cuvette comprises an input window and an output window.
  - 5. The apparatus of claim 3 wherein the optical cuvette comprises a microscope slide and a cover slip.
  - 6. The apparatus of claim 2 wherein a fixed plunger is provided that comes into contact with said container when said container is moved towards the objective lens of said microscope.
  - 7. The apparatus of claim 6 wherein the container is an optical cuvette.

- 8. The apparatus of claim 7 wherein the optical cuvette comprises an input window and an output window.
- 9. The apparatus of claim 7 wherein the optical cuvette comprises a microscope slide and a cover slip.